

EMGZ 309.EIP Measuring Amplifier with EtherNet/IP Interface

Integrated EtherNet/IP Field Bus

Straightforward integration in EtherNet network, possibility of real time control over the field bus

Plug & play or utilize EtherNet/IP Bus

Fast set-up or full utilization of extended parameter set

Three housing / mounting options

DIN Rail, Wall Mount (IP65), and panel mount

Polyvalent and powerful

Quick change-over of manufacturing processes, continues monitoring of relevant production parameters



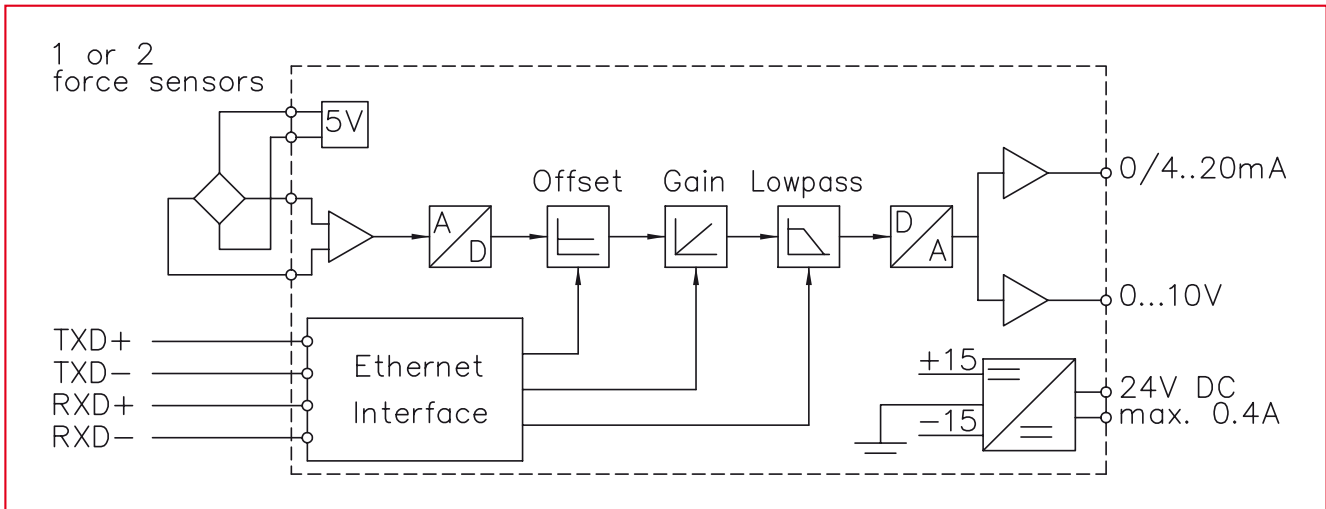
● EMGZ 309.EIP Series

EMGZ309.EIP amplifiers are an innovative enhancement of the successful EMGZ309 series. They are available with a built-in field bus based on EtherNet/IP technology (CIPTM Common Industrial Protocol IEC61158). The EtherNet/IP bus offers data transfer with cycle times of ≥ 2 ms. The fast data rates enable real time tension control over the bus. The enhanced connectivity and high data speed capability of this amplifier series along with all the other features create a flexible and powerful tension measuring system.

● Functional description

The mV signals generated by the force sensors are amplified and conditioned in the EMGZ309.EIP amplifier. The whole signal processing is fully digitised. Data is transferred via the EtherNet/IP bus to a central machine control or PLC where data processing and application dependent calculations are carried out. The EIP interface provides an efficient integration and configuration of the tension amplifiers in a EtherNet network.

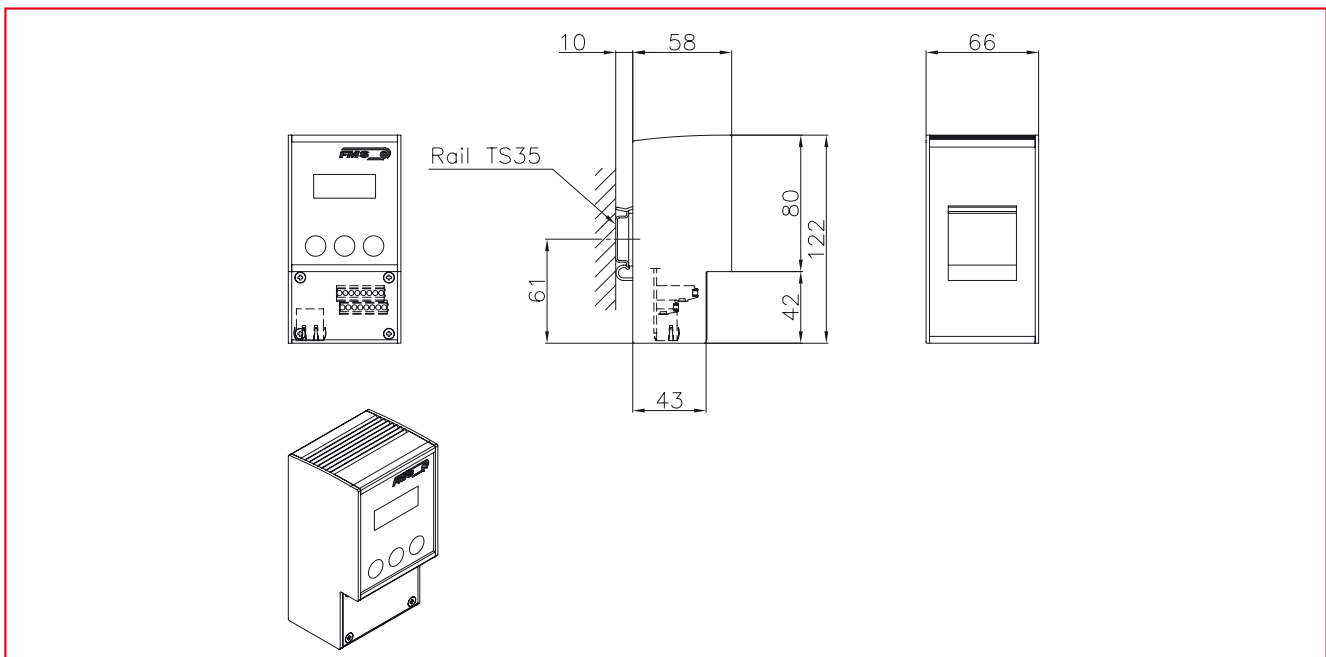
EMGZ 309.EIP Series • Block diagram



EMGZ 309.EIP • Technical data

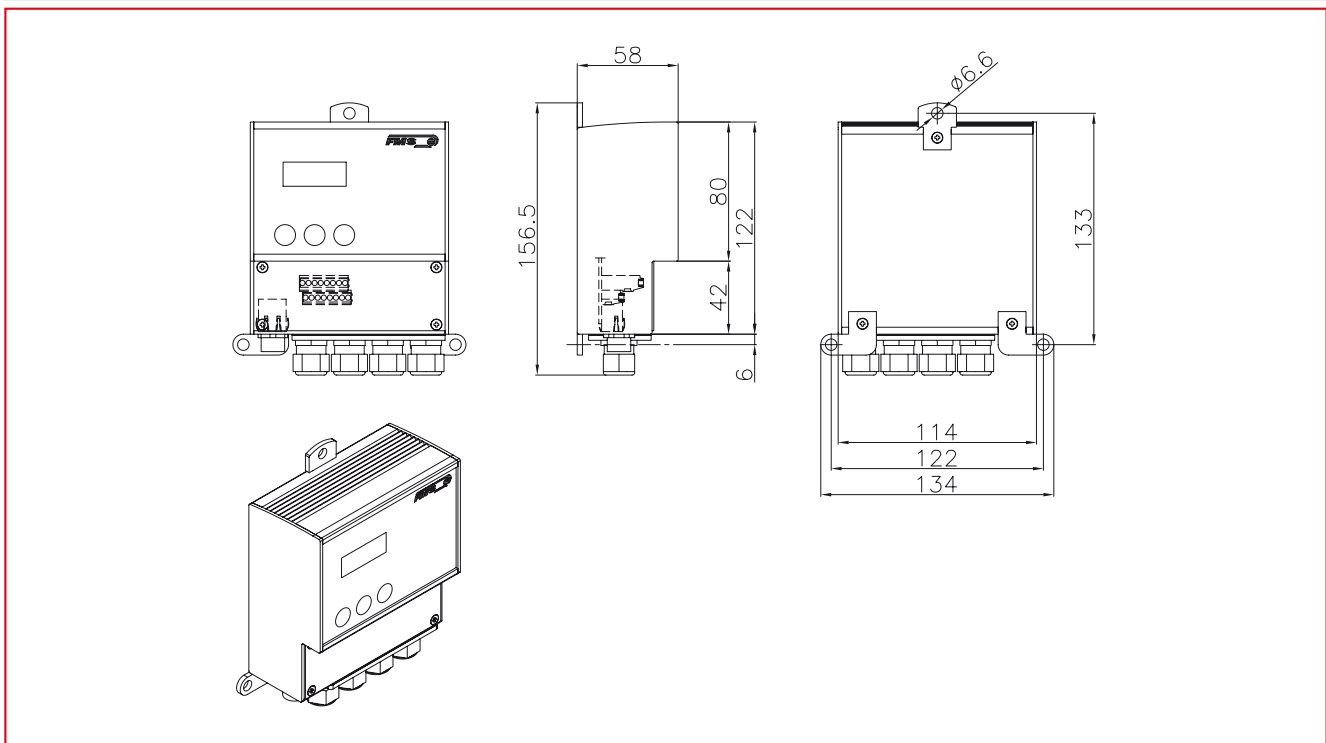
Channels	1
Force sensors	1 or 2 @ 350
Sensor supply voltage	5VDC max. 60mA, high stability
Input signal	0...9 mV (max. 12.5 mV)
Resolution A / D converter	± 8192 Digit (14 Bit)
Max. measuring error	< 0.05 % FS
Processor cycle time	2 ms
Operation interface	EtherNet/IP (CIPTM Common Industrial Protocol, Standard IEC61158)
Analogue output	0...10 VDC min. 1.2k and 0/4...20mA max. 500
Power supply	24 VDC (18...36 VDC)
Temperature range	-10...60 °C
Protection class	EMGZ 309.W.EIP (IP 65); EMGZ309.R.EIP and EMGZ309.S.EIP (IP 40)

EMGZ 309.R.EIP Rail Mount Housing • Dimensions in mm



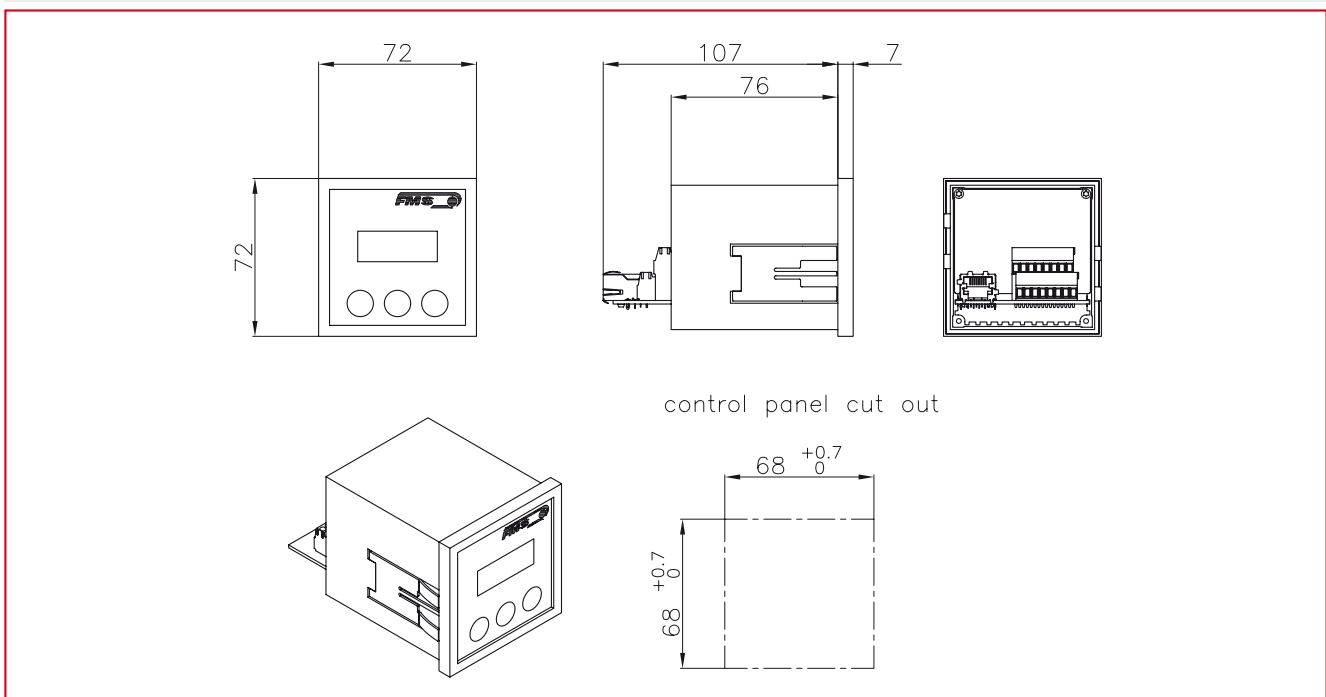
Wiring is realised via cable terminals; EtherNet connection: RJ-45 connector

EMGZ 309.W.EIP Wall Mount Housing • Dimensions in mm



With PG-Gland cable connector; EtherNet: M12 4-Pol D-coded connector (IP65)

EMGZ 309.S.EIP Panel Mount Housing • Dimensions in mm



Wiring is realised via cable terminals; EtherNet: RJ-45 connector

FMS' Product Portfolio and System Solutions



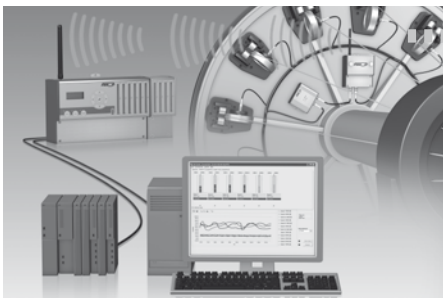
The product line **Force Sensors** provides products, solutions and related services that increase industrial productivity, energy efficiency and high quality output. Its force sensors, tension measuring rollers and pillow block based designs are of premium quality and ultra durable.



The product line **Electronics** facilitates tension monitoring, close loop tension control and web guiding systems. Key technologies include high-performance tension amplifiers and PID-controllers, as well as products to accurately and consistently control material position in continuously manufactured products.



The main focus of the **FMS Web Guiding business** is to provide customers with products and solutions for web detection and web positioning. Its steering frames, drives, controllers and material sensors provide an excellent coverage of the most important applications. The industries served include converting, printing, label processing and packaging.



RTM (Radio Transmitted Tension Monitoring) delivers system solutions across the cable production value chain. These innovative systems utilise force measuring rollers to capture the tension of individual wires or strands, and then securely transmit this data from the rotating to the static part of the machine. The systems are designed with fully compatible components. Production rates and product quality on rotating strand-handling machinery are significantly improved.



Special Application Fields facilitates solutions in **vacuum** applications or in potentially explosive atmospheres. A sophisticated range of interface options including systems such as **PROFINET, Ethernet/IP, Profibus** and **CAN-bus** provide quick and efficient integration of FMS products into the existing communication and control infrastructure of your company.

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